Message

From: John German [john@theicct.org]
Sent: 2/22/2013 7:12:25 PM
To: Wehrly, Linc [wehrly.linc@epa.gov]
Subject: Re: Data on diesel SCR catalyst size and composition

Thanks again, Linc.

John

On Feb 22, 2013, at 1:48 PM, "Wehrly, Linc" <wehrly.linc@epa.gov> wrote:

> John,
>
> I don't have the HD stuff except for the big pick-ups. I'll forward it to Justin Greuel, my counterpart in the HD group.
>
> Linc
>
> ---
>
> **From:** John German [mailto:john@theicct.org]
> **Sent:** Friday, February 22, 2013 1:17 PM
> **To:** Wehrly, Linc
> **Cc:** <francisco@theicct.org> Posada
> **Subject:** Re: Data on diesel SCR catalyst size and composition
>
> Sorry, they would like DPF size as well.
>
> John
>
> On Feb 22, 2013, at 1:15 PM, John German <john@theicct.org> wrote:
>
> Thanks again, Linc.
>
> However, you may have created more trouble for yourselves. Our HD folks think this information is great and want to know if they can get SCR composition and size for HD diesels.
>
> Is this feasible? I know it would be a lot more work.
>
> John
> 734-355-1055
>
> On Feb 22, 2013, at 11:07 AM, "Wehrly, Linc" <wehrly.linc@epa.gov> wrote:
>
> Both are using Fe-Zeolite. None of the LD manufacturers use Vanadium.

From: John German [mailto:john@theicct.org]
Sent: Thursday, February 21, 2013 10:35 PM
To: Wehrly, Linc
Subject: Re: Data on diesel SCR catalyst size and composition

Great! Much appreciated.

Any info on what BMW and Mercedes are using now?

John

On Feb 21, 2013, at 1:44 PM, "Wehrly, Linc" <wehrly.linc@epa.gov> wrote:

John,

Sorry it has taken so long. Here is what I have so far:

The following are using Cu-Zeolite

VW/Audi – 2.0 L engine / 6.96L catalyst
3.0 L engine / 6.41 L catalyst

Ford 6.7L engine/6.01L catalyst

Cummins 6.7L engine/3.36L catalyst

GM 6.6L engine

BMW and Mercedes may start using it in 2014 or 2015.

Linc

From: John German [mailto:john@theicct.org]
Sent: Thursday, February 21, 2013 11:24 AM
To: Wehrly, Linc
Subject: Fwd: Data on diesel SCR catalyst size and composition

Linc???

John

Begin forwarded message:

From: John German <john@theicct.org>
Subject: Re: Data on diesel SCR catalyst size and composition
Date: February 12, 2013 10:02:38 AM EST
To: Wehrly.Linc@epamail.epa.gov

Just a friendly reminder, Linc. It is getting to the time when we need this information.

John

On Jan 28, 2013, at 2:55 PM, John German <john@theicct.org> wrote:

Thanks, Linc (ignore the email I just sent you, which crossed somewhere in cyberspace).

Yes, we only need to know if they are using vanadium, copper, or iron - don't need any more details. Except for the size of the SCR catalyst.

We are only testing light-duty vehicles, so you don't need to include the heavy-duty pickups. But we certainly wouldn't object to getting similar data for them.

Time is OK. Our testing program is starting in a couple weeks, but we need this more for post-analysis of the data. Mid-Feb. would be fine.

John
734-355-1055

On Jan 28, 2013, at 2:26 PM, Wehrly.Linc@epamail.epa.gov wrote:

John,

Thanks for the message. I am still in the Compliance Division and have been the Group Manager (Center Director) for the light-duty vehicle group since Dan Harrison retired in 2007. The job is much different than when Dan had it. Much more complicated and stressful!

You are correct that neither the EPA test car data or the certification data sets include catalyst size. I wish I could say more, but the management and oversight of both databases belongs to Sara Zaremski's group (Data Analysis and Info Center). Currently, our compliance database Verify does not require manufacturers to submit whether the SCR catalyst uses vanadium, copper-zeolite, or iron zeolite. We generally know the answer. but it is not necessarily in our database. If you can give me time, I can have one of my guys dig through some information and see what we come up with. Do you simply want to know if they are using vanadium or copper or do you want more details? Do you want this just for light-duty or also include the heavy-duty pick-ups too?

There haven't been any SCR-based light-duty diesel vehicles tested in the manufacturer IUVP program

yet, because the volumes have been too small. We haven't tested one in our in-house surveillance program yet either, but hope to do so soon, so I don't have any in-use data yet on how they are performing.

Linc

Linc Wehrly
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(734) 214-4286
wehrly.linc@epa.gov

From: John German <john@theicct.org>
To: Linc Wehrly/AA/USEPA/US@EPA
Cc: Francisco Posada <francisco@theicct.org>
Date: 01/23/2013 04:52 PM
Subject: Data on diesel SCR catalyst size and composition

Linc,

Hopefully you are still with the certification division (or whatever it is called now). Please let me know who I should talk to at EPA about diesel catalyst data, if you aren't the appropriate person.

When we did the SFTP work in the mid-1990s, I know that we compiled a list that included catalyst size (not loadings, which are confidential) and made the data public. However, I just took a look at both the EPA test car data (http://www.epa.gov/OMS/tcldata.htm) and the certification data (http://www.epa.gov/omswww/crttst.htm). Neither one includes catalyst size. It would also be extremely helpful to know if the SCR catalyst on light-duty diesels containsvanadium, copper-zeolite, or iron-zeolite.

Can we get this information from EPA? Do we need a FOIA request?

By way of background, there are some data suggesting the SCR systems on light-duty diesels in Europe are not very effective in-use, perhaps because they are vanadium-based instead of zeolite-based. In order to investigate this, ICCT is paying for PEMS testing in Europe and on matching diesels sold in the US (e.g. compare a VW Passat 2.0L diesel sold in the US with one sold in Europe).

Reinhard Kolke from ADAC (the German car club) said the difference between EU and US systems is purely a question of urea dosage, not any hardware differences at all. He recommended that we measure the volume of the SCR catalyst + the volume of the urea tank to draw some rough conclusions about differences in dosage in EU and US. Thus, it would be very helpful to know the volume of the SCR catalyst. We also aren't sure there are no hardware differences, as the vanadium-based catalysts used in Europe have poor in-use performance, so we also want to know the type of SCR catalyst that is being used.

I hope you can help us out here.

John
734-355-1055